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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,125	07/10/2001	Katsuya Demoto	1114-163	7206

7590   07/21/2005

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EXAMINER
HOSSAIN, TANIM M

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/901,125	DEMOTO ET AL.
	Examiner	Art Unit	
	Tanim Hossain	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *31 March 2005*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-23* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-23* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☒ All   b) ☐ Some * c) ☐ None of:

         1. ☒ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8, 10, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated

by Shaffer (E.P. 0,848,560).

As per claim 1, Shaffer teaches a communication system comprising: an information

server capable of performing communication in first and second communication modes (column

4, lines 4-27; where one remotely located site constitutes the information server from which the

user obtains data; column 5, lines 44-52); a communication apparatus capable of performing

communication in the first and second communication modes (column 3, lines 9-16; column 4,

lines 4-27), the communication apparatus including: communication circuitry capable of

performing communication with the information server in the first and second communication

modes (column 4, lines 4-27; column 3, lines 21-25; where one remote site constitutes one user,

and the node from which data is obtained is the information server, and the network

administrator controls the information server); a connection information storage section (column

6, line 56 – column 7, line 1; column 7, lines 20-28); a communication mode switching control

section for controlling the switching of communication mode with the information server from

the first communication mode to the second communication mode by storing into the connection

information storage section connection information based on a condition of communication

connection of the communication apparatus and the information server in the first

communication mode at a time of the switching, releasing the connection of the communication

circuitry with the information server in the first communication mode, establishing a connection

with the information server in the second communication mode, and restoring the condition of

communication connection, based on the stored connection information (column 3, lines 21-25;

column 8, lines 3-22; column 10, lines 22-39).

As per claim 2, Shaffer teaches the communication system of claim 1, wherein the

communication apparatus further includes a switching condition storage section for storing a

predetermined determination reference value, and wherein the communication mode switching

control section compares an amount of information to be acquired from the information server

and the determination reference, and determines whether or not to execute switching of

communication mode, based on a result of the comparison (column 8, lines 3-22, 37-45).

As per claim 3, Shaffer teaches the communication system of claim 1, wherein the

communication mode switching control section determines whether or not to execute the

switching of communication mode, based on a kind of information to be acquired from the

information server (column 3, lines 1-8; column 5, lines 53-55; where the medium based

differences constitute switching by information type).

As per claim 5, Shaffer teaches the communication system of claim 1, wherein the

communication apparatus further includes a switching condition storage section for storing a

time (column 7, lines 20-28), and wherein the communication mode switching control section

compares a current time and the time stored in the switching condition storage section, to

determine whether or not to execute the switching of communication mode (column 3, lines 24-26; column 7, lines 20-37).

As per claim 6, Shaffer teaches the communication system of claim 1, wherein the communication mode switching control section determines whether to execute switching of communication mode or not, based on the operator's operation (column 11, line 34 – column 12, line 16; where the operator's choice of data implies a certain QoS, and when a suitable mode is found, the user chooses this, to initiate switching).

As per claim 7, Shaffer teaches the communication system of claim 1, wherein when a communication mode switching instruction is received from the information server, the communication mode switching control section switches the communication mode, based on the switching instruction (column 3, lines 24-25; where the network administrator's switch constitutes a switching instruction from the information server).

As per claim 8, Shaffer teaches the communication system of claim 7, wherein the communication apparatus transmits to the information server a signal representative of whether to transmit the communication mode switching instruction from the information server to the communication apparatus or not, based on the operator's operation (column 3, lines 24-25; column 6, lines 43-55; where the signal is inherently sent, by which the administrator can decide whether to switch modes by whether the QoS is met).

As per claim 10, Shaffer teaches a communication system comprising: an information server capable of performing communication in first and second communication modes (column 4, lines 4-27; where one remotely located site constitutes the information server from which the user obtains data; column 5, lines 44-52); and a communication apparatus capable of performing

communication in the first and the second communication modes (column 3, lines 9-16; column

4, lines 4-27), the communication apparatus including: communication circuitry capable of

performing communication with the information server in the first and the second

communication modes (column 4, lines 4-27; where one remote site constitutes one user, and the

node from which data is obtained is the information server); a connection information storage

section (column 6, line 56 – column 7, line 1; column 7, lines 20-28); a switching condition

storage section for storing a reference value of an information transfer rate (column 6, lines 18-

30); and a communication mode switching control section for, when the communication means is

acquiring information from the information server in the first communication mode monitoring a

rate of information transfer from the information server, comparing the information transfer rate

being monitored and the reference value of the information transfer rate previously stored in the

switching condition storage section, and in cases where the information transfer rate being

monitored does not exceed the reference value, storing a condition of communication connection

with the information server at that time into the connection information storage section as the

connection information, disconnecting the communication in the first communication mode,

establishing a connection with the information server in the second communication mode to

perform switching of communication mode, and restoring the communication connection

condition based on the connection information stored in the connection information storage

section when the communication in the first communication mode is disconnected (column 6,

lines 18-55; where the switching constitutes the disconnection from the first communication

mode).

As per claim 11, Shaffer teaches a communication system comprising: an information

server capable of performing communication in first and second communication modes (column

4, lines 4-27; where one remotely located site constitutes the information server from which the

user obtains data; column 5, lines 44-52); and a communication apparatus capable of performing

communication in the first and the second communication modes (column 3, lines 9-16; column

4, lines 4-27), the information server including: communication means capable of performing

communication with the communication apparatus in the first and the second communication

modes (column 4, lines 4-27; where one remote site constitutes one communication apparatus,

and the node from which data is obtained is the information server); a switching condition

storage section for storing a predetermined reference value of an information transfer rate

(column 6, lines 18-30); and a communication mode switching control section for, when the

communication means is transferring information to the communication apparatus in the first

communication mode, monitoring the information transfer rate, comparing the information

transfer rate being monitored and the reference value of the information transfer rate previously

stored in switching condition storage section, and in cases where the information transfer rate

being monitored does not exceed the reference value, causing the communication means to

transmit a communication mode switching instruction to the communication apparatus (column

6, lines 18-55; where the switching constitutes the disconnection from the first communication

mode), and the communication apparatus including: communication means capable of

performing communication with the information server in the first and the second

communication modes (column 3, lines 9-16; column 4, lines 4-27); a connection information

storage section for storing a communication connection condition as connection information

(column 6, line 56 – column 7, line 1; column 7, lines 20-28); and a communication mode

switching control section for, when the communication means receives the communication mode

switching instruction causing a condition of communication connection with the information

server at that time to be stored in the connection information storage section as the connection

information, based on the switching instruction, disconnecting the communication in the first

communication mode, establishing a connection with the information server in the second

communication mode to perform switching of communication mode, and restoring the

communication connection condition based on the connection information stored when the

communication in the first communication mode is disconnected (column 6, lines 18-55; where

the switching constitutes the disconnection from the first communication mode; column 3, lines

21-25).

As per claim 14, Shaffer teaches the communication system of claim 1, wherein after a

predetermined time has elapsed since the information acquisition in the second communication

mode is completed, the communication mode switching control section automatically

disconnects the communication in the second communication mode, and again establishes a

connection with the information server in the first communication mode to perform switching of

communication mode (column 3, lines 21-26; where the link failure constitutes the completion of

the acquisition of information in the second mode, and the reconnection constitutes a

reconnection into the first mode).

As per claim 15, Shaffer teaches a communication apparatus for communicating with an

information server using different communication modes, the communication apparatus

comprising: a communication section for establishing communications with the information

server in the different communication modes (column 4, lines 29-45); a storage section (column 9, lines 1-5); and a communication mode switching control section for controlling the switching of communication modes with the information server by storing connection information into the storage second based on a communication connection condition of the communication apparatus and the information server in a current communication mode, releasing the communication connection with the information server, and establishing a communication connection with the information server in another m ode and restoring the communication connection condition based on the stored connection information (column 4, lines 29-45).

As per claim 18, Shaffer teaches the communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based on an instruction signal from the information server (column 4, lines 29-45).

As per claim 20, Shaffer teaches the communication apparatus of claim 15, wherein the communication mode switching control section controls the switching in accordance with a type of information to be acquired from the information server (column 5, lines 53-55).

As per claim 21, Shaffer teaches the communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based at least in part on communication charges (Abstract).

As per claim 22, Shaffer teaches the communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based on comparison between a current time and a specified time (column 7, lines 20-28).

As per claim 23, Shaffer teaches the communication apparatus of lcaim 15, wherein the

communication mode switching section controls the switching based at least in part on an

operator's instruction (column 8, lines 26-29).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer in view of

Kunz (U.S. 6,223,221).

As per claim 4, Shaffer teaches the communication system of claim 1, wherein the

communication apparatus includes a switching condition storage section (column 4, lines 44-52),

and wherein when an information acquisition request is received from the operator, the

communication mode switching control section measures a parameter, and determines whether to

execute switching of communication mode or not based on the measured parameter for the

communication connection times in the first and second communication modes, respectively,

previously stored in the switching condition storage section (column 6, lines 18-55). Shaffer

does not specifically teach that the measured parameter is the connection time. Kunz teaches an

intelligence tool in a web browser that measures download and connection time to perform a

certain task (column 2, lines 8-34). It would have been obvious to one of ordinary skill in the art

to include the tool to measure connection time into the QoS monitoring device, in which modes

are switched based on whether the Qos is met, as taught by Kunz in the system of Shaffer. The

motivation for doing so lies in the fact that adding the parameter of connection time would allow

for modes to be discriminated by this parameter, further diversifying the invention. Connection

charges are often incurred by connection time, and thus the inclusion of this component would

account for this fact, allowing the system to choose a cheaper mode for information transfer.

Both inventions are from the same field of endeavor, namely the efficient transfer of data

through a network.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer in view of

Watson (U.S. 6,631,409).

As per claim 9, Shaffer teaches the communication system of claim 1, but does not

specifically teach the user's ability to override switching instructions from the information

server. Watson teaches the user's ability to override default network settings (column 10, lines

27-38). It would have been obvious to one of ordinary skill in the art at the time of the invention

to include the ability of a user to override the instruction from the information server, based on

his/her preference, as taught by Watson in the system of Shaffer. The motivation for doing so

lies in the fact that allowing the user to ultimately control his/her preferences for communication

modes gives the user a further degree of freedom to add further efficiency and ease of use to the

invention. Both inventions are from the same field of endeavor, namely the efficient use of

network resources to allow for data transportation.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer in view of Davis (U.S. 5,583,922).

As per claim 12, Shaffer teaches the communication system of claim 1, but does not specifically teach the automatic disconnection of a communication mode, after the information acquisition in this mode has been completed. Davis teaches the switching from a data transmission back to voice mode in a communication system, once the data transmission is completed (column 7, lines 19-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to automatically return to a first mode after the use of the second mode has been completed, as taught by Davis in the system of Shaffer. The motivation for doing so lies in the fact that there exists a need for the connection to revert back to its default node, in a situation where connection to a second node must be paid for, for example. To avoid overcharging, it is necessary for the mode to revert to the default mode after the task in the second mode is completed, so that there is no unnecessary connection time to the second mode. Both inventions are from the same field of endeavor, namely the use of a communication system employing different methods of communication.

As per claim 13, Shaffer teaches the communication system of claim 1, and teaches that the instruction to switch the communication mode can come from the information server (column 3, lines 21-25). Shaffer does not specifically teach the automatic disconnection and switching from a second communication mode to a first communication mode, triggered by the information server. Davis teaches the switching from a data transmission back to voice mode in a communication system, once the data transmission is completed (column 7, lines 19-45). It would have been obvious to one of ordinary skill in the art to include the ability to automatically

return to a first mode after the use of the second mode has been completed, triggered by the

information server, as taught by Davis in the system of Shaffer. The motivation for doing so lies

in the fact that there exists a need for the connection to revert back to its default node, in a

situation where connection to a second node must be paid for, for example. To avoid

overcharging, it is necessary for the mode to revert to the default mode after the task in the

second mode is completed, so that there is no unnecessary connection time to the second mode.

Both inventions are from the same field of endeavor, namely the use of a communication system

employing different methods of communication.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer.

As per claim 16, Shaffer teaches the communication apparatus of claim 15, but does not

specifically teach the use of a URL as a connection information. It would have been obvious to

one of ordinary skill in the art at the time of the invention to include this as a criteria, in light of

the fact that the connection modes, in Shaffer's invention, are governed by data type and

websites. Therefore, it would have been obvious to include the use of a URL as a criteria, since

certain modes would be better suited for certain URLs. See also O'Neil, U.S. Patent 6,128,279,

which discusses directing different URLs to different server modes.

As per claim 17, Shaffer teaches the communication apparatus of claim 15, but does not

specifically teach that the communication system is embodied in a portable terminal. It would

have been obvious to one of ordinary skill in the art at the time of the invention to include the

ability to make the system part of a portable device. In light of Shaffer disclosing that there

exists a network interface, embodied in a modem, to control communications over the network

(column 6, lines 1-13), and also a computer to govern over the process (figure 2), it would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to use wireless modems on a portable computer in this capacity, which constitutes embodiment in a portable terminal.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer in view of McLain (U.S. 6,493,758).

As per claim 19, Shaffer teaches the communication apparatus of claim 15, wherein the communication mode switching control section controls the switching based on a comparison (column 2, lines 13-58). Shaffer does not specifically teach that this comparison is performed as a limit of a data amount to be acquired. McLain teaches the placing of a limit of data to be downloaded from the information server, such that if it exceeds a reference value, discontinuation will take place (column 7 line 32 – column 8 line 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to place a download limit on a certain mode and switch to another once this limit has been met, as taught by McLain in the system of Shaffer. The motivation for doing so lies in the fact that placing a limit on a download will enable tariffs to be controlled, in the case that after a certain amount, the tariff increases. With the obvious modification, switching may take place before the increase, for the consumer to enjoy lower tariffs without concerns of time limitation online. Both inventions are from the same field of endeavor, namely the efficient transfer of information thorough a network.

Response to Arguments

Applicants arguments filed on March 31, 2005 have fully been considered, but are not

persuasive.

a. Applicant asserts that there is no disclosure in Shaffer of storing connection

information and restoring a condition of communication connection based on the stored

connection information as claimed. Examiner respectfully disagrees. In Shaffer, storage of

continuous connection conditions is abundantly disclosed, embodied in a quality of service table

that is constantly monitored during usage (column 4, lines 27-45; column 7, lines 40-41; column

9, lines 1-5). Shaffer's invention monitors a certain connection, and based on the current stored

QoS or tariff values, decides whether to switch into a different mode. In the event that certain

thresholds are not met, the connection switches to another mode, still continuously monitoring

the former communication mode. If it is decided that the new mode does not meet the threshold

requirements, the connection may return to the previous connection (column 10, lines 22-52).

Therefore, connection storage and restoration, as claimed by the application, is illustrated in

Shaffer.

b. Applicant asserts that Shaffer does not disclose the storing of connection information

based on a condition of communication connection or the restoring of the communication

connection condition based on this stored connection information. Referring to the treatment of

the previous argument, Shaffer does indeed address these issues. Communication conditions are

in the QoS tables, substantially disclosed throughout the European Patent. Restoration, as

previously discussed, takes place based on the monitoring of all available connections, and

modes may be switched back and forth in an unlimited fashion based on the desirability of these

connections, which are governed by the stored values (column 10, lines 22-52).

c. Applicant asserts that no instruction, in the form of a digital signal, is sent to the

communication apparatus in Shaffer to cause the apparatus to switch between modes. The

existence of instructions as any digital signal causing the switch between certain modes is an

inherent part of the invention. For the very existence and utility of Shaffer's invention, there

must exist instructions in some form of a digital signal, which cause the apparatus to switch

between modes. Additionally, no mention of a digital signal is claimed in claim 11, which

renders this argument moot.

d. Applicant asserts that Shaffer does not disclose a switching determination based on

the amount to be acquired from the server. Switching, in Shaffer, is governed by a rate of

transfer, and also by a time duration (column 9, line 49 – column 10, line 52). As a result, a

determination of an amount takes place.

e. The discussion in claim 7, with a switching instruction coming from a server is

discussed in part c.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tanim Hossain whose telephone number is 571/272-3881. The

examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Valencia Martin-Wallace can be reached on 571/272-6159. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tanim Hossain
Patent Examiner
Art Unit 2145

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SUPERVISORY PATENT EXAMINER